

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Toru TOJO, et al.

SERIAL NO: New Application

GAU:

FILED: Herewith

EXAMINER:

FOR: PATTERN INSPECTION APPARATUS

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97**

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

**REFERENCES**

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**RELATED CASES**

- ☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**CERTIFICATION**

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

**DEPOSIT ACCOUNT**

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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**STATEMENT OF RELEVANCY**

**Reference AA (5,572,598) of Form PTO-1449:**

This reference shows an optical system illuminated by a scanning laser, in which individual transmitted and reflected light and detectors are used to inspect the defects.

**Reference AB (5,563,702) of Form PTO-1449:**

This reference shows an inspection method using transmitted and reflected signals from the substrate.

**Reference AO (2002-501194) of Form PTO-1449:**

This reference shows an inspection system which can detect transmitted and reflected light simultaneously.

**Reference AW of Form PTO-1449:**

The cell-to-cell comparison method to obtain high defect detection sensitivity is studied in this paper. Transmission and reflection optics are used.

| Form PTO 1449<br>(Modified)                                                                                                                                                                                                                  |    | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE                                                                                                                        |          | ATTY DOCKET NO.<br>251154US2SRDX |                 | SERIAL NO.<br>New Application                                    |                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------|-----------------|------------------------------------------------------------------|-------------------------------|
| LIST OF REFERENCES CITED BY APPLICANT                                                                                                                                                                                                        |    |                                                                                                                                                                                   |          | APPLICANT<br>Toru TOJO, et al.   |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              |    |                                                                                                                                                                                   |          | FILING DATE<br>Herewith          |                 | GROUP                                                            |                               |
| <b>U.S. PATENT DOCUMENTS</b>                                                                                                                                                                                                                 |    |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
| EXAMINER<br>INITIAL                                                                                                                                                                                                                          |    | DOCUMENT<br>NUMBER                                                                                                                                                                | DATE     | NAME                             | CLASS           | SUB<br>CLASS                                                     | FILING DATE<br>IF APPROPRIATE |
|                                                                                                                                                                                                                                              | AA | 5,572,598                                                                                                                                                                         | 11/05/96 | Mark J. WIHL, et al.             |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              | AB | 5,563,702                                                                                                                                                                         | 10/08/96 | David G. EMERY, et al.           |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              | AC |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              | AD |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
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|                                                                                                                                                                                                                                              | AI |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              | AJ |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
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|                                                                                                                                                                                                                                              | AN |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
| <b>FOREIGN PATENT DOCUMENTS</b>                                                                                                                                                                                                              |    |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              |    | DOCUMENT<br>NUMBER                                                                                                                                                                | DATE     | COUNTRY                          | TRANSLATION     |                                                                  |                               |
|                                                                                                                                                                                                                                              |    |                                                                                                                                                                                   |          |                                  | YES             | NO                                                               |                               |
|                                                                                                                                                                                                                                              | AO | 2002-501194                                                                                                                                                                       | 01/15/02 | Japan                            |                 | X                                                                |                               |
|                                                                                                                                                                                                                                              | AP |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              | AQ |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
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|                                                                                                                                                                                                                                              | AU |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              | AV |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
| <b>OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)</b>                                                                                                                                                               |    |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              | AW | Yasutaka MORIKAWA, et al., "PERFORMANCE OF CELL-SHIFT DEFECT INSPECTION TECHNIQUE", Proceedings of SPIE, Photomask and X-Ray Mask Technology IV, Vol. 3096, 1997, pgs. 404 - 414. |          |                                  |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              | AX |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              | AY |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |
|                                                                                                                                                                                                                                              | AZ |                                                                                                                                                                                   |          |                                  |                 | <input type="checkbox"/> Additional References sheet(s) attached |                               |
| Examiner                                                                                                                                                                                                                                     |    |                                                                                                                                                                                   |          |                                  | Date Considered |                                                                  |                               |
| *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |    |                                                                                                                                                                                   |          |                                  |                 |                                                                  |                               |